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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,717	07/24/2000	Bo Jin	CY-0013	6438

7590 08/28/2002

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EXAMINER

THOMAS, TONIAE M

ART UNIT	PAPER NUMBER
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2822

DATE MAILED: 08/28/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/621,717

Applicant(s)

JIN ET AL.

Examiner

Toniae M. Thomas

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-16, 19, 20 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 17, 18, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Introduction***

1. This action is a first Office action on the merits of Application 09/621,717.

Currently, claims 1-26 are pending.

### ***Election/Restrictions***

2. Applicant's election with traverse of claims 10-26 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that "it is not believed that distinctness has been established as the process relied upon in restriction requirement is not materially different than the claimed process." This is not found persuasive. In the restriction requirement mailed 07 May 2002, it was shown that the inventions of Groups I and II are distinct by showing that the product of Group I can be made by another and materially different process than that of Group II. Furthermore, it was shown that a serious burden to the examiner would result if restriction were not required because the inventions have acquired a separate status in the art as shown by their different classification.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 1-9 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a non-elected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

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4. Applicant's arguments regarding the species restriction are persuasive.

Accordingly, the election of species as set forth in the restriction requirement mailed 07 May 2002 is withdrawn.

### ***Drawings***

5. Figures 5A-5D, 6A-6B, 7A-7B, and 8 should be designated by a legend such as -  
-Prior Art- because only that which is old is illustrated. See MPEP § 608.02(g). A  
proposed drawing correction or corrected drawings are required in reply to the Office  
action to avoid abandonment of the application. The objection to the drawings will not  
be held in abeyance.

### ***Specification***

6. The specification has not been checked to the extent necessary to determine the  
presence of all possible minor errors. Applicant's cooperation is requested in correcting  
any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly  
claiming the subject matter, which the applicant regards as his invention.

7. *Claims 11-13 and 16 are rejected under 35 U.S.C. 112, second paragraph, as  
being indefinite for failing to particularly point out and distinctly claim the subject matter  
which applicant regards as the invention.*

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Antecedent basis for the following claim language is unclear: *a first layer* (claim 11, line 3; claim 13, line 5), and *an etch stop layer* (claim 12, line 2). It is not clear if the phrase *a first layer* refers to the first layer recited in claim 10, at line 2; or if the phrase *an etch stop layer* refers to the etch stop layer recited in claim 10, at line 3. It is suggested that the phrase *a first layer* be changed to *the first layer* (both occurrences), and the phrase *an etch stop layer* be changed to *the etch stop layer*.

The following claim language lacks antecedent basis: the normal wafer (claim 13, line 3), and the second layer (claim 16, line 3).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. *Claims 10, 14-16, and 19 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art.*

The admitted prior art discloses a method of forming a monitoring structure (see fig. 8 and specification at page 5, lines 9-22). The method comprises etching a first layer 802 to form monitor trenches that extend through the first layer to an etch stop layer 804 on a monitor wafer 800, and forming a feature in relation to the monitor trenches.

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The step of forming a feature includes forming an SOI transistor, which comprises source region 808, channel region 810, drain region 812, gate dielectric 814, gate 816; an SOI contact 822; and an SOI interlayer dielectric.

9. *Claims 20 and 23-26 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art.*

The admitted prior art discloses a method of monitoring a semiconductor manufacturing process (see figs. 5A-5D, 7A-7D, and specification at page 2, line 10 to page 4, line 22). The method comprising processing a monitor wafer having monitor trenches 506 formed in a first layer 502 of the monitoring wafer 500 according to at least one process step that forms a feature (fig. 5B).

The at least one process step includes depositing and planarizing a trench insulating material 510 (figs. 5C-5D). The at least one process step includes an STI deposition step and an STI insulator chemical mechanical polishing step.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toniae M. Thomas whose telephone number is (703) 305-7646. The examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead can be reached on (703) 308-4940. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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*JMS*

August 26, 2002

A handwritten signature in black ink, appearing to read 'Stephen D. Meier', with a long, sweeping horizontal stroke extending to the right.

**Stephen D. Meier**  
**Primary Examiner**